

**CLAIMS**

Having described my invention, I claim:

1. A release agent, comprising:
  - a. food grade mineral oil;
  - b. water; and
  - c. an emulsifier, in a quantity sufficient to form an emulsion between said food grade mineral oil and said water.
2. A release agent as recited in claim 1, wherein said food grade mineral oil is white oil.
3. A release agent as recited in claim 1, wherein said food grade mineral oil is polydimethylsiloxane.
4. A release agent as recited in claim 2, wherein said emulsifier is sorbitan monostearate.
5. A release agent as recited in claim 3, wherein said emulsifier is sorbitan monostearate.
6. A release agent as recited in claim 1, further comprising vegetable oil.

7. A release agent as recited in claim 6, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
8. A release agent as recited in claim 2, further comprising vegetable oil.
9. A release agent as recited in claim 8, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
10. A release agent as recited in claim 3, further comprising vegetable oil.
11. A release agent as recited in claim 10, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
12. A release agent as recited in claim 4, further comprising vegetable oil.
13. A release agent as recited in claim 12, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.

14. A release agent as recited in claim 5, further comprising vegetable oil.
15. A release agent as recited in claim 14, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
16. A release agent, comprising:
  - a. food grade mineral oil, wherein the volume of said food grade mineral oil is in the range of about 15% to about 25% of the total volume of said release agent;
  - b. water, wherein the volume of said water is in the range of about 70% to about 85% of the total volume of said release agent; and
  - c. an emulsifier, wherein the volume of said emulsifier is in the range of about .1% to about 5% of the total volume of said release agent.
17. A release agent as recited in claim 16, wherein said release agent is diluted by adding additional water so that said release agent comprises:
  - a. food grade mineral oil, wherein the volume of said food grade mineral oil is in the range of about 2% to about 6% of the total volume of said release agent;
  - b. water, wherein the volume of said water is in the range of about 89% to about 97% of the total volume of said release agent; and
  - c. an emulsifier, wherein the volume of said emulsifier is in the range of about .1% to about 5% of the total volume of said release agent.

18. A release agent, comprising:
  - a. food grade mineral oil, wherein the volume of said food grade mineral oil is in the range of about 25% to about 35% of the total volume of said release agent;
  - b. water, wherein the volume of said water is in the range of about 60% to about 75% of the total volume of said release agent; and
  - c. an emulsifier, wherein the volume of said emulsifier is in the range of about .1% to about 5% of the total volume of said release agent.
  
19. A release agent as recited in claim 18, wherein said release agent is diluted by adding additional water so that said release agent comprises:
  - a. food grade mineral oil, wherein the volume of said food grade mineral oil is in the range of about 5% to about 7% of the total volume of said release agent;
  - b. water, wherein the volume of said water is in the range of about 88% to about 94% of the total volume of said release agent; and
  - c. an emulsifier, wherein the volume of said emulsifier is in the range of about .1% to about 5% of the total volume of said release agent.

20. A release agent, comprising:
- a. polydimethylsiloxane, wherein the mass of said polydimethylsiloxane is in the range of about 15% to about 25% of the total mass of said release agent;
  - b. sunflower oil, wherein the mass of said sunflower oil is in the range of about 5% to about 10% of the total mass of said release agent;
  - c. an emulsifier, wherein the mass of said emulsifier is in the range of about .5% to about 2% of the total mass of said release agent; and
  - d. water, wherein the mass of said water is in the range of about 63% to about 79% of the total mass of said release agent.
21. A release agent as recited in claim 20, wherein said release agent is diluted by adding additional water, so that said release agent comprises:
- a. polydimethylsiloxane, wherein the mass of said polydimethylsiloxane is in the range of about 4% to about 7% of the total mass of said release agent;
  - b. sunflower oil, wherein the mass of said sunflower oil is in the range of about 1% to about 3% of the total mass of said release agent;
  - c. an emulsifier, wherein the mass of said emulsifier is in the range of about .1% to about .5% of the total mass of said release agent; and
  - d. water, wherein the mass of said water is in the range of about 89% to about 95% of the total mass of said release agent.

- b. water, wherein the volume of said water is in the range of about 60% to about 75% of the total volume of said release agent; and
  - c. an emulsifier, wherein the volume of said emulsifier is in the range of about .1% to about 5% of the total volume of said release agent.
22. A release agent, comprising:
- a. polydimethylsiloxane, wherein the mass of said polydimethylsiloxane is in the range of about 15% to about 25% of the total mass of said release agent;
  - b. sunflower oil, wherein the mass of said sunflower oil is in the range of about 5% to about 10% of the total mass of said release agent;
  - c. a first emulsifier, suitable for mixing with water, wherein the mass of said emulsifier is in the range of about .5% to about 2% of the total mass of said release agent;
  - d. a second emulsifier, suitable for mixing with polydimethylsiloxane, wherein the mass of said emulsifier is in the range of about .5% to about 2% of the total mass of said release agent; and
  - e. water, wherein the mass of said water is in the range of about 63% to about 79% of the total mass of said release agent.

23. A release agent as recited in claim 22, wherein said release agent is diluted by adding additional water, so that said release agent comprises:
- a. polydimethylsiloxane, wherein the mass of said polydimethylsiloxane is in the range of about 4% to about 7% of the total mass of said release agent;
  - b. sunflower oil, wherein the mass of said sunflower oil is in the range of about 1% to about 3% of the total mass of said release agent;
  - c. a first emulsifier, suitable for mixing with water, wherein the mass of said emulsifier is in the range of about .1% to about .5% of the total mass of said release agent;
  - d. a second emulsifier, suitable for mixing with polydimethylsiloxane, wherein the mass of said emulsifier is in the range of about .1% to about .5% of the total mass of said release agent; and
  - e. water, wherein the mass of said water is in the range of about 89% to about 95% of the total mass of said release agent.
24. A method for making a release agent, comprising:
- a. heating silicone oil to a temperature between 100°C and 130°C;
  - b. adding boiling water to said silicone oil, to form a first mixture; and
  - c. adding an emulsifier to said first mixture to form a second mixture.

25. A method as recited in claim 24, wherein said emulsifier is sorbitan monostearate.
26. A method as recited in claim 24, wherein:
  - a. said silicone oil comprises about 19% of the total volume of said release agent;
  - b. said emulsifier comprises between about 1% and about 2% of the total volume of said release agent; and
  - c. said water comprises between about 79% and about 81% of the total volume of said release agent.
27. A method as recited in claim 26, wherein:
  - a. additional water is added so that said water comprises between about 91% and about 96% of the total volume of said release agent;
  - b. said silicone oil comprises about 4% of the total volume of said release agent; and
  - c. said emulsifier comprises between about .2% and about .5% of the total volume of said release agent.
28. A method as recited in claim 24, wherein:
  - a. said silicone oil comprises about 32% of the total volume of said release agent;
  - b. said emulsifier comprises between about 1% and about 2% of the total volume of said release agent; and
  - c. said water comprises between about 64% and about 65% of the total volume of said release agent.



29. A method as recited in claim 28, wherein:
- a. additional water is added so that said water comprises between about 92% and about 93% of the total volume of said release agent;
  - b. said silicone oil comprises about 6.7% of the total volume of said release agent; and
  - c. said emulsifier comprises between about .2% and about .5% of the total volume of said release agent.
30. A method as recited in claim 24, further comprising adding a vegetable oil to form a third mixture.
31. A method as recited in claim 30, wherein:
- a. said silicone oil comprises about 21% of the total volume of said release agent;
  - b. said vegetable oil comprises about 8% of the total volume of said release agent;
  - c. said emulsifier comprises about 1% of the total volume of said release agent; and
  - c. said water comprises between about 70% of the total volume of said release agent.
32. A method as recited in claim 31, wherein:
- a. additional water is added so that said water comprises about 92% of the total volume of said release agent;
  - b. said silicone oil comprises about 5% of the total volume of said release agent;
  - c. said vegetable oil comprises about 2% of the total volume of said release agent; and
  - d. said emulsifier comprises about .3% of the total volume of said release agent.

33. A method as recited in claim 30, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
34. A method as recited in claim 24, wherein:
- a. said silicone oil comprises between about 15% and about 25% of the total volume of said release agent;
  - b. said emulsifier comprises between about .1% and about 5% of the total volume of said release agent; and
  - c. said water comprises between about 70% and about 85% of the total volume of said release agent.
35. A method as recited in claim 34, wherein:
- a. additional water is added so that said water comprises between about 89% and about 97% of the total volume of said release agent;
  - b. said silicone oil comprises between about 2% and about 6% of the total volume of said release agent; and
  - c. said emulsifier comprises between about .1% and about 5% of the total volume of said release agent.

36. A method as recited in claim 30, wherein:
- a. said silicone oil comprises between about 15% and about 25% of the total volume of said release agent;
  - b. said vegetable oil comprises between about 6% and about 10% of the total volume of said release agent;
  - c. said emulsifier comprises between about 1% and about 5% of the total volume of said release agent; and
  - d. said water comprises between about 70% and about 85% of the total volume of said release agent.
37. A method as recited in claim 36, wherein:
- a. additional water is added so that said water comprises between about 89% and about 97% of the total volume of said release agent;
  - b. said silicone oil comprises between about 2% and about 6% of the total volume of said release agent;
  - c. said vegetable oil comprises between about 1% and about 2% of the total volume of said release agent; and
  - d. said emulsifier comprises between about 1% and about 5% of the total volume of said release agent.

38. A method for making a release agent, comprising:
- a. heating silicone oil to a temperature between 100°C and 130°C;
  - b. adding a first emulsifier to said silicone oil to create a first mixture;
  - c. heating water to its boiling point;
  - d. adding a second emulsifier to said boiling water to create a second mixture; and
  - e. combining said first and second mixtures to create a third mixture.
39. A method as recited in claim 38, further comprising adding vegetable oil to said third mixture to form a fourth mixture.
40. A method as recited in claim 39, wherein said vegetable oil is selected from the group comprising: sunflower oil, soybean oil, corn oil, olive oil, peanut oil, safflower oil, cottonseed oil, and palm oil.
41. A method as recited in claim 39, wherein:
- a. said silicone oil comprises about 20% of the total volume of said release agent;
  - b. said vegetable oil comprises about 6% of the total volume of said release agent;
  - c. said first and second emulsifiers in combination comprise about 2% of the total volume of said release agent; and
  - d. said water comprises about 72% of the total volume of said release agent.

42. A method as recited in claim 41, further comprising adding additional water to create a diluted formulation.